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**CLAIMS:**

What is claimed is:

- 1 1. A method in a data processing system for specifying  
2 a cache policy for caching pages which include dynamic  
3 content, said method comprising the steps of:  
4       permitting a user to request one of said pages to be  
5 displayed, said one of said pages including a plurality  
6 of fragments;  
7       executing an application which includes a plurality  
8 of servlets, each one of said plurality of servlets being  
9 executed to present a different one of said plurality of  
10 fragments, each one of said plurality of servlets being  
11 unchanged by said caching policy; and  
12       processing caching of said one of said pages  
13 separately from said application.
- 1 2. The method according to claim 1, further comprising  
2 the steps of processing caching of each of said plurality  
3 of fragments separately from said application.
- 1 3. The method according to claim 1, wherein the step of  
2 processing caching further comprises the steps of:  
3       responding to internal cache requests; and  
4       responding to external cache requests.

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1 4. The method according to claim 1, further comprising  
2 the step of processing caching of said one of said pages  
3 within an application server included within said  
4 computer system.

1 5. The method according to claim 4, further comprising  
2 the steps of:  
3 responding to internal cache requests, said internal  
4 cache requests being generated within said application  
5 server; and  
6 responding to external cache requests, said external  
7 cache requests being generated outside said application  
8 server.

1 6. The method according to claim 1, wherein the step of  
2 processing caching of said one of said pages further  
3 comprises the steps of:  
4 receiving a request to display one of said plurality  
5 of fragments;  
6 determining one of plurality of servlets associated  
7 with said one of said plurality of fragments; and  
8 executing said one of said plurality of servlets,  
9 wherein said execution of said one of said plurality of  
10 servlets generates a displayable output.

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1 7. The method according to claim 6, further comprising  
2 the steps of:

3 in response to a first request to display said one  
4 of said plurality of fragments, creating a cache entry  
5 including said output;

6 creating a cache entry identifier for identifying  
7 said cache entry utilizing a user identifier which  
8 identifies said user and caching options specified for  
9 said one of said plurality of servlets.

1 8. The method according to claim 7, further comprising  
2 the steps of:

3 creating said one of said plurality of servlets;  
4 specifying said cache options for said one of said  
5 plurality of servlets; and

6 creating a servlet element for said servlet  
7 utilizing a servlet identifier and an indication of said  
8 specified cache options, wherein said servlet element is  
9 associated with said servlet.

1 9. The method according to claim 8, further comprising  
2 the steps of:

3 storing said servlet; and

4 storing said specification of said servlet options  
5 with said servlet.

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1 10. The method according to claim 8, further comprising  
2 the steps of:  
3 receiving a request to display said servlet element;  
4 determining whether any cache entry is identified by  
5 said cache identifier;  
6 in response to a determination that no cache entry  
7 is identified by said cache identifier:  
8 retrieving said servlet associated with said  
9 servlet element;  
10 providing said user identifier to said servlet;  
11 executing said servlet utilizing said user  
12 identifier generating an output;  
13 storing said output as a cache entry;  
14 identifying said cache entry utilizing said  
15 cache identifier; and  
16 returning said cache entry to said user,  
17 wherein said output is displayed.

1 11. The method according to claim 8, further comprising  
2 the steps of:  
3 receiving a request to display said servlet element;  
4 determining whether any cache entry is identified by  
5 said cache identifier;  
6 in response to a determination that a cache entry  
7 exists which is identified by said cache identifier,  
8 returning said cache entry to said user, wherein said  
9 output is displayed.

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1 12. The method according to claim 6, further comprising  
2 the step of outputting said cache entry, wherein said one  
3 of said plurality of fragments is displayed.

1 13. The method according to claim 6, further comprising  
2 the step of in response to subsequent requests to display  
3 said one of said plurality of fragments, retrieving said  
4 cache entry utilizing said cache identifier.

1 14. The method according to claim 13, further comprising  
2 the step of outputting said cache entry, wherein said one  
3 of said plurality of fragments is displayed.

1 15. A data processing system for specifying a cache  
2 policy for caching pages which include dynamic content,  
3 comprising:

4       said data processing system for executing an  
5 application which includes a plurality of servlets, each  
6 one of said plurality of servlets being executed to  
7 present a different one of a plurality of fragments  
8 included within a page, each one of said plurality of  
9 servlets being unchanged by said caching policy; and

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10        said data processing system for processing caching  
11 of said one of said pages separately from said  
12 application.

1    16. The system according to claim 15, further comprising  
2    said data processing system for processing caching of  
3    each of said plurality of fragments separately from said  
4    application.

1    17. The system according to claim 15, further  
2    comprising:  
3        said data processing system for responding to  
4    internal cache requests; and  
5        said data processing system for responding to  
6    external cache requests.

1    18. The system according to claim 15, further comprising  
2    said data processing system for processing caching of  
3    said one of said pages within an application server  
4    included within said computer system.

1    19. The system according to claim 18, further  
2    comprising:

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3        said data processing system for responding to  
4    internal cache requests, said internal cache requests  
5    being generated within said application server; and  
6        said data processing system for responding to  
7    external cache requests, said external cache requests  
8    being generated outside said application server.

1    20.   The system according to claim 15, further  
2    comprising:

3        said data processing system for receiving a request  
4    to display one of said plurality of fragments;

5        said data processing system for determining one of  
6    plurality of servlets associated with said one of said  
7    plurality of fragments; and

8        said data processing system for executing said one  
9    of said plurality of servlets, wherein said execution of  
10   said one of said plurality of servlets generates a  
11   displayable output.

1    21.   The system according to claim 20, further  
2    comprising:

3        said data processing system for in response to a  
4    first request to display said one of said plurality of  
5    fragments, creating a cache entry including said output;

6        said data processing system for creating a cache  
7    entry identifier for identifying said cache entry

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8 utilizing a user identifier which identifies said user  
9 and caching options specified for said one of said  
10 plurality of servlets.

1 22. The system according to claim 21, further  
2 comprising:  
3 said data processing system for creating said one of  
4 said plurality of servlets;  
5 said data processing system for specifying said  
6 cache options for said one of said plurality of servlets;  
7 and  
8 said data processing system for creating a servlet  
9 element for said servlet utilizing a servlet identifier  
10 and an indication of said specified cache options,  
11 wherein said servlet element is associated with said  
12 servlet.

1 23. The system according to claim 22, further  
2 comprising:  
3 said data processing system for storing said  
4 servlet; and  
5 said data processing system for storing said  
6 specification of said servlet options with said servlet.

1 24. The system according to claim 22, further  
2 comprising:  
3 said data processing system for receiving a request  
4 to display said servlet element;



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5        said data processing system for determining whether  
6 any cache entry is identified by said cache identifier;  
7        said data processing system in response to a  
8 determination that no cache entry is identified by said  
9 cache identifier:

10            for retrieving said servlet associated with  
11        said servlet element;  
12            for providing said user identifier to said  
13        servlet;  
14            for executing said servlet utilizing said user  
15        identifier generating an output;  
16            for storing said output as a cache entry;  
17            for identifying said cache entry utilizing said  
18        cache identifier; and  
19            for returning said cache entry to said user,  
20        wherein said output is displayed.

1    25. The system according to claim 22, further  
2    comprising:

3        said data processing system for receiving a request  
4        to display said servlet element;  
5        determining whether any cache entry is identified by  
6        said cache identifier;  
7        said data processing system for in response to a  
8        determination that a cache entry exists which is  
9        identified by said cache identifier, returning said cache  
10        entry to said user, wherein said output is displayed.

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1 26. The system according to claim 20, further comprising  
2 said data processing system for outputting said cache  
3 entry, wherein said one of said plurality of fragments is  
4 displayed.

1 27. The system according to claim 20, further comprising  
2 said data processing system for in response to subsequent  
3 requests to display said one of said plurality of  
4 fragments, retrieving said cache entry utilizing said  
5 cache identifier.

1 28. The system according to claim 27, further comprising  
2 said data processing system for outputting said cache  
3 entry, wherein said one of said plurality of fragments is  
4 displayed.

1 29. A computer program product in a data processing  
2 system for specifying a cache policy for caching pages  
3 which include dynamic content, said computer program  
4 product comprising:

5 instruction means for permitting a user to request  
6 one of said pages to be displayed, said one of said pages  
7 including a plurality of fragments;

8 instruction means for executing an application which  
9 includes a plurality of servlets, each one of said  
10 plurality of servlets being executed to present a  
11 different one of said plurality of fragments, each one of

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12 said plurality of servlets being unchanged by said  
13 caching policy; and  
14 instruction means for processing caching of said one  
15 of said pages separately from said application.

1 30. The product according to claim 29, further  
2 comprising instruction means for processing caching of  
3 each of said plurality of fragments separately from said  
4 application.

1 31. The product according to claim 29, wherein said  
2 instruction means for processing caching further  
3 comprises:  
4 instruction means for responding to internal cache  
5 requests; and  
6 instruction means for responding to external cache  
7 requests.

1 32. The product according to claim 29, further  
2 comprising instruction means for processing caching of  
3 said one of said pages within an application server  
4 included within said computer system.

1 33. The product according to claim 32, further  
2 comprising:  
3 instruction means for responding to internal cache  
4 requests, said internal cache requests being generated  
5 within said application server; and

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6 instruction means for responding to external cache  
7 requests, said external cache requests being generated  
8 outside said application server.

1 34. The product according to claim 29, wherein said  
2 instruction means for processing caching of said one of  
3 said pages further comprises:

4 instruction means for receiving a request to display  
5 one of said plurality of fragments;

6 instruction means for determining one of plurality  
7 of servlets associated with said one of said plurality of  
8 fragments; and

9 instruction means for executing said one of said  
10 plurality of servlets, wherein said execution of said one  
11 of said plurality of servlets generates a displayable  
12 output.

1 35. The product according to claim 34, further  
2 comprising:

3 instruction means for in response to a first request  
4 to display said one of said plurality of fragments,  
5 creating a cache entry including said output;

6 instruction means for creating a cache entry  
7 identifier for identifying said cache entry utilizing a  
8 user identifier which identifies said user and caching  
9 options specified for said one of said plurality of  
10 servlets.

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1 36 The product according to claim 35, further  
2 comprising:  
3 instruction means for creating said one of said  
4 plurality of servlets;  
5 instruction means for specifying said cache options  
6 for said one of said plurality of servlets; and  
7 instruction means for creating a servlet element for  
8 said servlet utilizing a servlet identifier and an  
9 indication of said specified cache options, wherein said  
10 servlet element is associated with said servlet.

1 37. The product according to claim 36, further  
2 comprising:  
3 instruction means for storing said servlet; and  
4 instruction means for storing said specification of  
5 said servlet options with said servlet.

1 38. The product according to claim 36, further  
2 comprising:  
3 instruction means for receiving a request to display  
4 said servlet element;  
5 instruction means for determining whether any cache  
6 entry is identified by said cache identifier;  
7 instruction means in response to a determination  
8 that no cache entry is identified by said cache  
9 identifier:  
10 for retrieving said servlet associated with  
11 said servlet element;

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12           for providing said user identifier to said  
13       servlet;  
14           for executing said servlet utilizing said user  
15       identifier generating an output;  
16           for storing said output as a cache entry;  
17           for identifying said cache entry utilizing said  
18       cache identifier; and  
19           for returning said cache entry to said user,  
20       wherein said output is displayed.

1 39. The product according to claim 36, further  
2 comprising:  
3       instruction means for receiving a request to display  
4       said servlet element;  
5       instruction means for determining whether any cache  
6       entry is identified by said cache identifier;  
7       instruction means for in response to a determination  
8       that a cache entry exists which is identified by said  
9       cache identifier, returning said cache entry to said  
10      user, wherein said output is displayed.

1 40. The product according to claim 34, further  
2 comprising instruction means for outputting said cache  
3       entry, wherein said one of said plurality of fragments is  
4       displayed.

1 41. The product according to claim 34, further  
2 comprising instruction means for in response to

1 42. The product according to claim 41, further  
2 comprising instruction means for outputting said cache  
3 entry, wherein said one of said plurality of fragments is  
4 displayed.

**THE**